

(19) World Intellectual Property  
Organization  
International Bureau



INTERNATIONAL BUREAU OF PATENT COOPERATION  
358, RUE DE LA FÉDÉRATION  
CH-1202 GENEVE 20  
SUISSE

(43) International Publication Date  
24 February 2005 (24.02.2005)

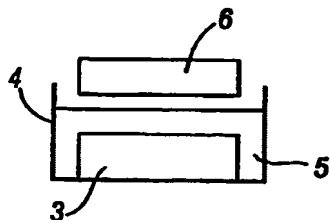
PCT

(10) International Publication Number  
**WO 2005/016192 A2**

- (51) International Patent Classification<sup>7</sup>: **A61F 2/28**
- (21) International Application Number:  
PCT/GB2004/003475
- (22) International Filing Date: 12 August 2004 (12.08.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
0318901.6 12 August 2003 (12.08.2003) GB
- (71) Applicant (for all designated States except US): UNIVERSITY OF BATH [GB/GB]; Claverton Down, Bath BA2 7AY (GB).
- (72) Inventors; and  
(75) Inventors/Applicants (for US only): MILES, Anthony, William [GB/GB]; 14 Upper Oldfield Park, Bath BA2 3JZ (GB). TURNER, Irene, Gladys [GB/GB]; 48 Budbury Close, Bradford on Avon, Wiltshire BA15 1QG (GB). GITTINGS, Jonathan, Paul [GB/GB]; 5 Ffordd Eynon Evan, Caecephilly, Mid Glamorgan CF83 2ET (GB).
- (74) Agents: BARDO, Julian, Eason et al.; Abel & Imray, 20 Red Lion Street, London WC1R 4PQ (GB).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KR, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:  
— without international search report and to be republished upon receipt of that report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2005/016192 A2

(54) Title: BONE SUBSTITUTE MATERIAL



(57) Abstract: A method of fabricating a bone substitute material comprises the steps of providing a foam material (3) having an open cell structure, distorting the shape of the foam material (3) and holding the material in a distorted shape, coating the walls of the cells of the foam material with a ceramic slip (5), removing the foam material, and sintering the ceramic slip to form a bone substitute material that is approximately a positive image of the distorted foam material (3). In another method, a granular bone material is formed from a multiplicity of pieces of foam that are not distorted.